ETHIOPIA METEOROLOGY INSTITUTE

Agrometeorological Bulletin

TEN DAY AGROMETEOROLOGICAL BULLETIN

11-20 July 2024 VOLUME: - 41 No. 20 DATE OF ISSUE: - July 23, 2024

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TABLE OF CONTENTS

FORE WARD

This Agro met Bulletin is prepared and disseminated by the Ethiopia Meteorology Institute (EMI). The aim is to provide those sectors of the community involved in Agriculture and related disciplines with the current weather situation in relation to known agricultural practices.

The information contained in the bulletin, if judiciously utilized, are believed to assist planners, decision makers and the farmers at large, through an appropriate media, in minimizing risks, increase efficiency, maximize yield. On the other hand, it is vital tool in monitoring crop/ weather conditions during the growing seasons, to be able to make more realistic assessment of the annual crop production before harvest.

The Agency disseminates ten daily, monthly and seasonal weather reports in which all the necessary current information's relevant to agriculture are compiled.

We are of the opinion that careful and continuous use of this bulletin can benefit to raise ones agro climate consciousness for improving agriculture-oriented practices. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objective of this bulletin a success.

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SUMMARY

During the first dekad of July 2024, according to the analyzed agro-meteorological information, most of crop growing as well as Kiremt season rain benefiting areas experienced enhanced moisture situation in amount and distribution. In relation with the enhanced moisture condition heavy rainfall 30mm and above during 24hrs period were reported at several agro-meteorological stations. The observed enhanced moisture might favorable to sustain the growth and fulfill the daily water need of early planted Meher season crops including long and medium cycle crops and perennial plants. The observed moisture was positive to conduct land preparation and sowing of crops which will be sown after July The expanded moisture over the southern, eastern and north-eastern pastoral and agro pastoral areas could have positive implication to ensure the availability of pasture and drinking water and replenish both artificial and natural water points as well. On the other hand, the recorded heavy rainfall might trigger flash flood occurrence and water logging due to excess moisture.

During the second dekad of July, agricultural meteorology data collected and analyzed from different parts of the country indicated that there was widespread moisture in areas that benefited from kiremt rains, supporting the growth of Meher crops. This moisture is available for sowing of various mid-term crops that are sown from July. Also it was great importance in terms of meeting their water needs for Meher crops that were sown earlier and are at different stages of development, as well as for long-cycle Meher crops such as Maize and sorghum that were sown from April. Moreover it was a significant contribution to the growth of various perennial plants and garden vegetables. Occasionally, the moisture that spread to the south, northeast and east of the country contributed to the agricultural activities in the area, as well as drinking water and grazing grass for pastoralists and semi-pastoralist areas. On the other hand, the heavy rains in some areas, especially in the northern, central, southwestern, and eastern parts of the country, as well as in the areas that have been receiving continuous rain for the past few days, may cause excessive moisture and infestation of weeds. In addition, in some places, especially in Tigray (Atsbi), Amhara region (Dangla), Afar, Harar, Ziway and Jimma, the flash floods caused some damage to crops, animals and permanent plants.

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1. WEATHER ASSESSMENT

1.1. Rainfall amount (11 – 20 July 2024)

During the First dekad of July 2024, pocket areas of North Gonder were received above 200mm rainfall and most parts of North Gonder, South Gonder, Bahirdar, pocket areas of East Gojam, dividend areas of East Wellega, Jimma, and Illubabor, West and Northwest Shewa, South Wollo zones were received 100-200mm rainfall. In addition to this, most parts of East and West Wellega, Assossa, Illubabor, Jimma, Sheka, Keffa, Godere, Guraghe, Silite, all Shewa Zones, North, South, West and Central Gonder zones, Bahirdar, Waghimira, Agew Awi, West Tigray, East Gojam, and South Wollo Zones and some parts of Arsi Zones were received 50-100mm rainfall. In addition to this North Wollo, East Tigray and West Tigray, Oromia Special Zones, parts of Gamogofa, Alaba, Keffa, Dawro, Godere, Gambela 1 and 2 Zones were prevailed 25-50mm rainfall. However, South and Central Tigray, parts of North Wollo, Afar 2, 3 and 5 Zones, Shinle, East and West Hararghe, Jigjiga, Hadiya, Wolayta, Sidama, Bench Maji, Basketo and Gedeo Zones were experienced 5-25mm of rainfall. However, the rest part of the country especially Southern and Southeastern and half of Northeastern parts of the country was received 0-5 mm of rain fall.

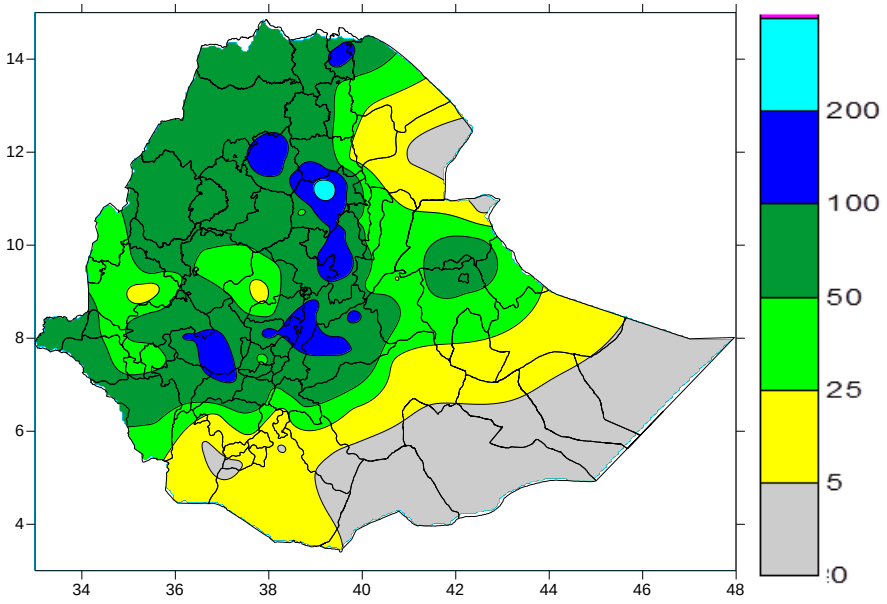


Figure.1 Rainfall distribution in mm (11 – 20) July 2024

1.2. Rainfall Anomaly (11 – 20 July 2024)

When we look at to the rainfall anomaly map below, during the First dekad of July 2024, except parts of western, south western and north eastern parts were exhibited Normal to Above Normal Rain

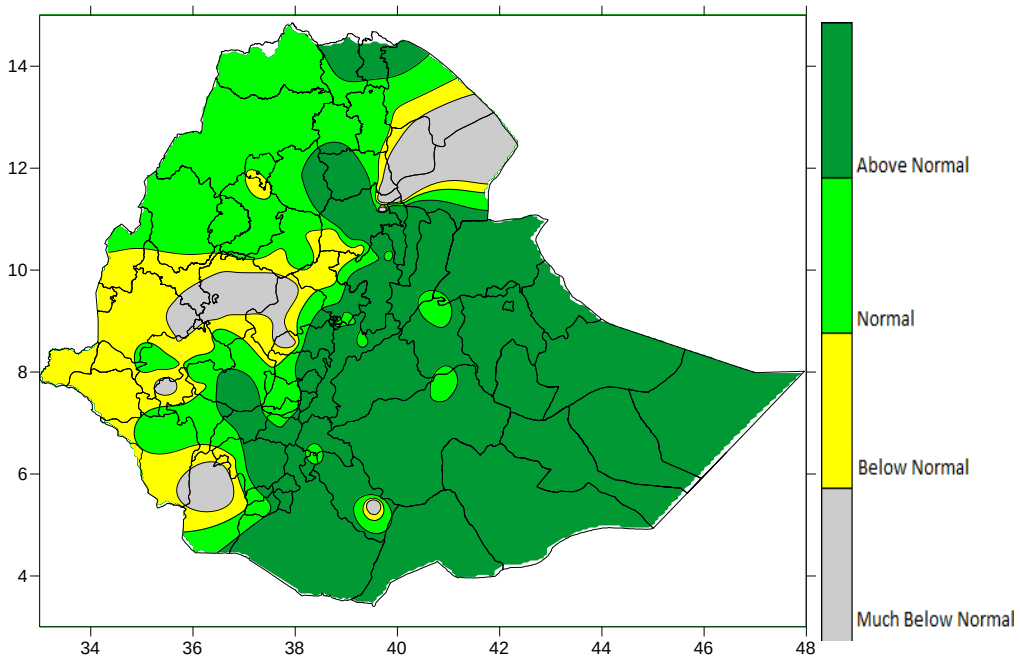


Fig.2. Percent of normal rainfall distribution (11 – 20 July, 2024)

Explanatory notes for the Legend

< 50-Much below normal
50-75%-Below normal
75-125%- Normal
> 125% - Above normal

1.3. Moisture Condition (11 – 20 July 2024)

As indicated on the moisture status map below during the second dekad of July 2024 most parts of Meher producing and Kiremt rain benefiting parts of the country exhibited Moist to Hyper Moist moisture condition. Which had a positive impact to perform land preparation and planting for Meher crops as well as for perennial plants, Vegetables, early sowed crops and availability of pastors and drinking water over pastoral and agro-pastoral areas. The rest parts of the countries exhibited moderately dry too very dry.

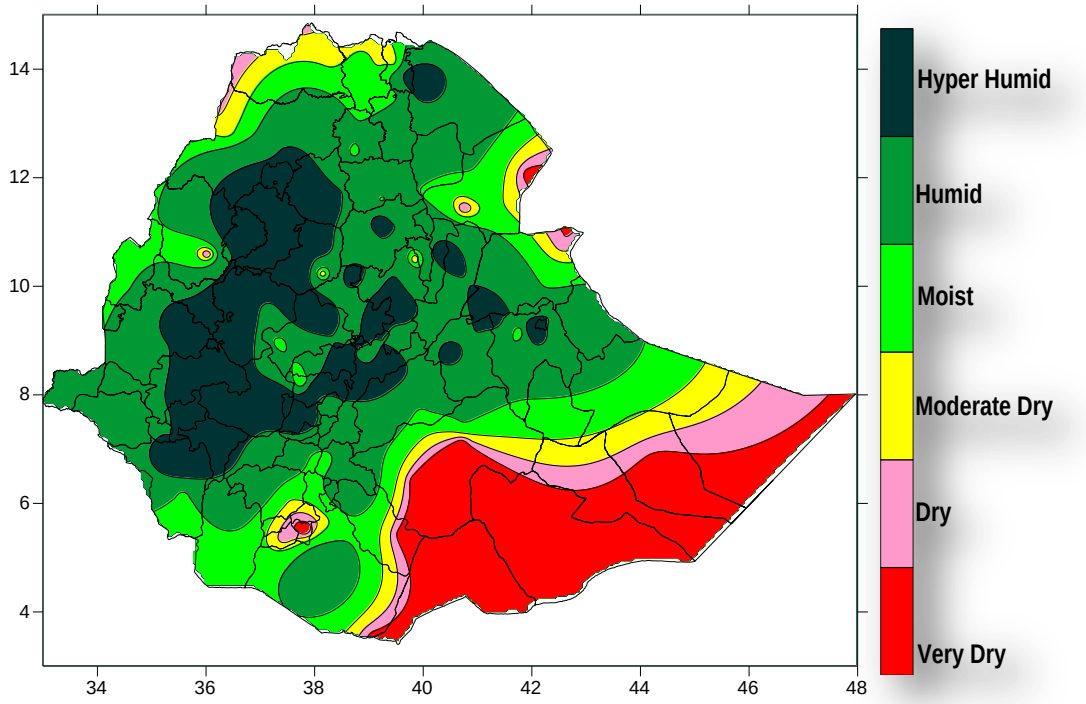


Fig. 3 moisture status for (11 – 20 July, 2024)

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the first dekad of July, due to the relative strengthening of rain bearing meteorological systems good moisture conditions has been experienced over Meher producing and rain benefiting areas of the country, according to this increment the vegetation condition expanded across Kiremt rain benefiting parts of the country (Fig.4. NDVI and Rangeland WRSI in %). This condition might have positive impact to sustain the growth and fulfill the daily water need of early planted Meher season crops including long and medium cycle crops, perennial plants and availability of pastors and drinking water over pastoral and agro-pastoral areas.

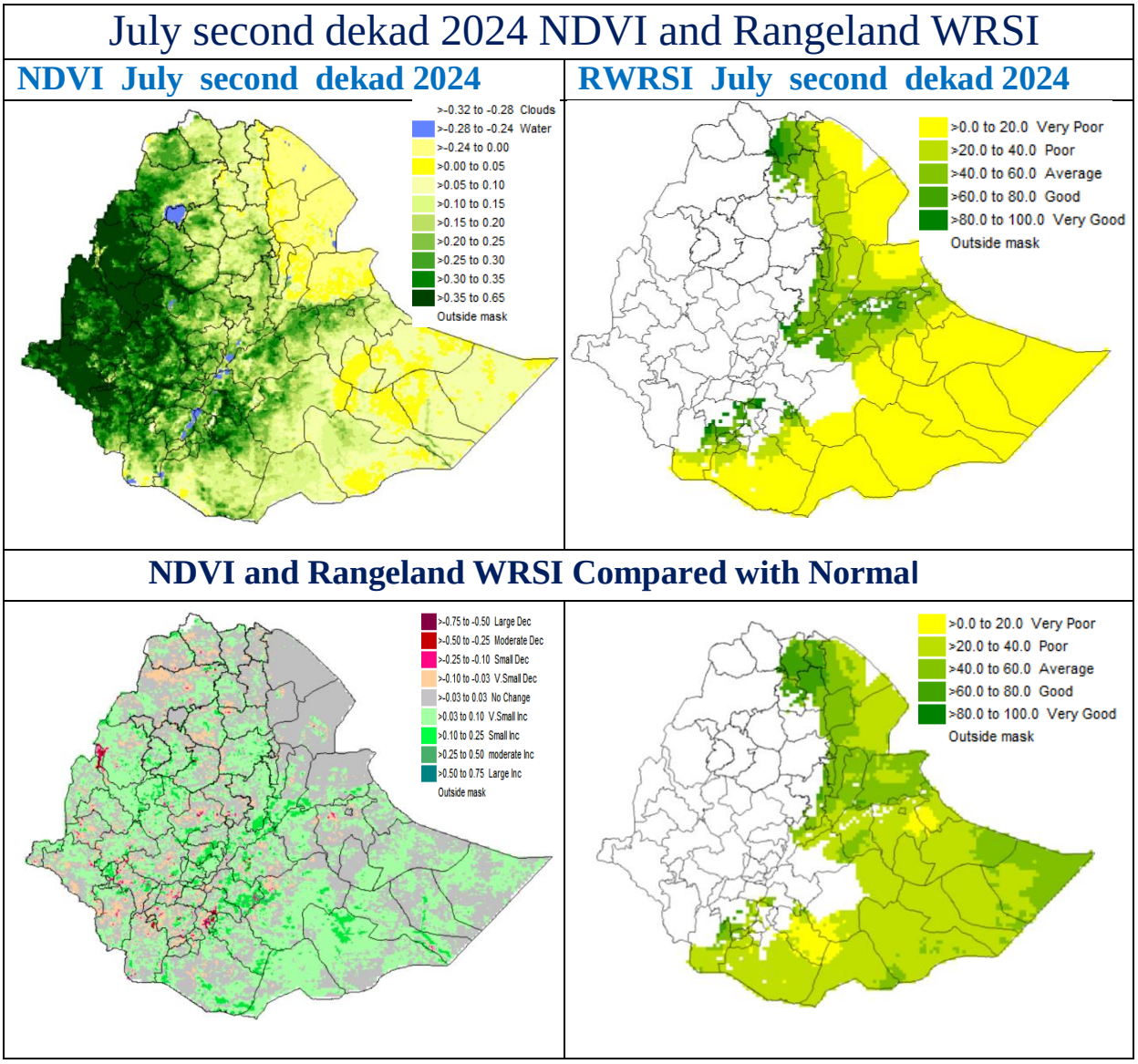


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - July 11-20, 2024

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THECOMING THIRD DEKAD OF JULY 2024

Normally, the third dekad of July is the time when the moisture gets stronger in most of the Kiremt crop growing areas, and in terms of agricultural activities, it is the time when the soil Moisture needed for the crops that have already been sown are sufficient and a favorable condition is created for the crops that will be sown.

It is expected that in the following eleven days of the third dekad of July, there will be widespread moisture in most areas of the country that benefit from kiremt. This situation will be great importance for the agricultural activity, and the moisture available for the meher crops that have already been sown and are at different stages of development will have a positive impact. Along with this, it is expected that the meher season will improve soil moisture for areas that start farming late and will create favorable conditions for sowing crops in time. In addition, meeting the water needs of permanent plants and improving the supply of grazing and drinking water for the pastoral and semi-pastoral areas in the east and northeast, which are currently receiving moisture, will be of great importance. On the other hand, in some places, the moisture may be too much. As a result, it is necessary to take care by taking out canals so that water does not lie on the field, doing work to prevent it from sticking, and correcting weeds in time, using herbicides and pesticides based on the advice of agricultural experts. Also, in connection with the expected heavy rain in some areas, the occurrence of flash floods and landslides, especially in the areas that are receiving heavy rains, the farmers and the concerned parties should work together to prevent damage to crops, animals and property.

3. DEFNITION OF TERMS

ABOVE NORMAL RAINFALL: - Rainfall in excess of 125% of the long termmean

BELOW NORMAL RAINFALL: - Rainfall below 75 % of the long term mean.

NORMAL RAINFALL: - Rainfall amount between 75 % and 125 % of the long term mean.

BEGA: - It is characterized with sunny and dry weather situation with occasional falls. It extends from October to January. On the other hand, it is a small rainy season for the southern and south eastern lowlands under normal condition. During the season, morning and night times are colder and daytime is warmer.

BELG: - Small Rainy season that extends from February to June and cover s southern, central, eastern and north-eastern parts of the country.

CROP WATER REQUIREMENTS: - the amount of water needed to meet the water loss through evapotranspiration of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

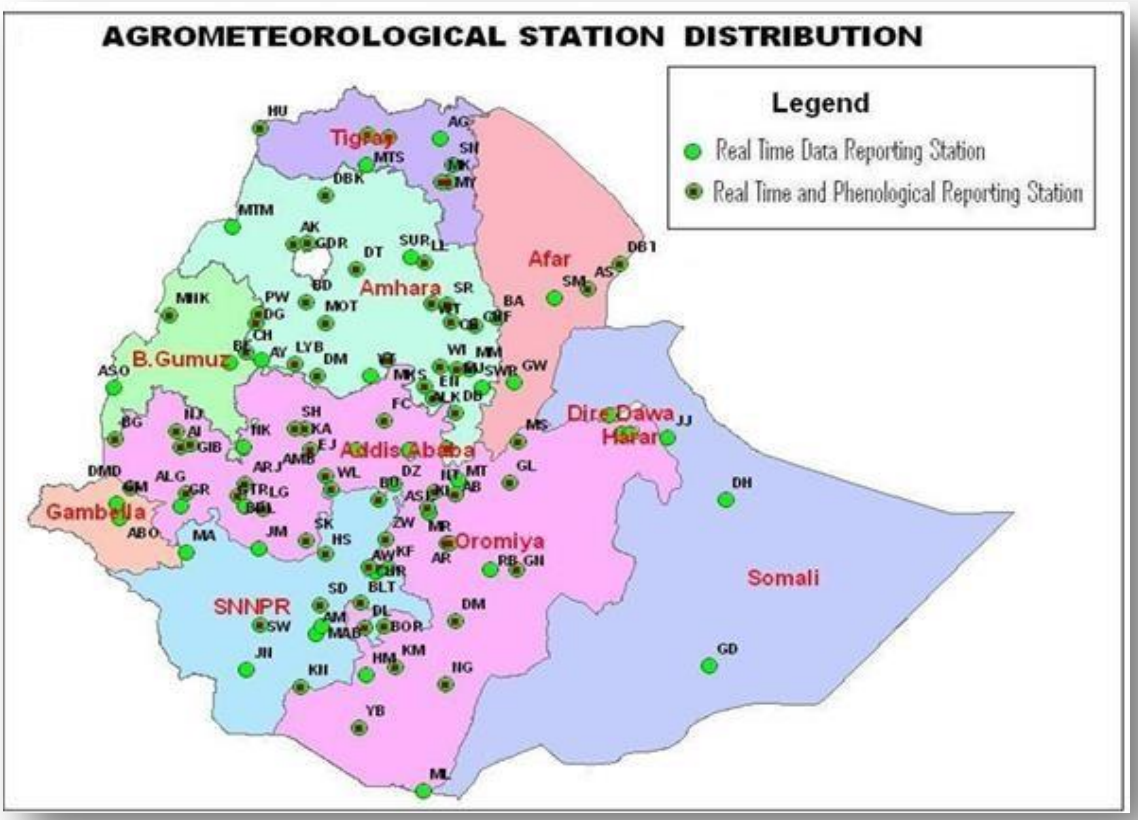
DEKAD: - First or second ten days or the remaining days of a month.

EXTREME TEMPERATURE:- The highest or the lowest temperature among the recorded maximum or minimum temperatures respectively.

ITCZ:- Inter-tropical convergence zone (narrow zone where trade winds of the two hemispheres meet.

KIREMT: - Main rainy season that extends from June to September for most parts of the country with the exception of the south-eastern lowlands of the country.

RAINY DAY: - A day with 1 or more mm of rainfall amount



Station	Code	Station	Code	Station	Code	Station	Code
A. Robe	AR	D. Zeit	DZ	Humera	HU	Nazereth	NT
A.A. Bole	AA	D/Dawa	DD	Jijiga	JJ	Nedjo	NJ
Adigrat	AG	D/Mena	DOM	Jimma	JM	Negelle	NG
Adwa	AD	D/Odo	DO	Jinka	JN	Nekemte	NK
Aira	AI	D/Tabor	DT	K.Dehar	KD	Pawe	PW
AleJunea	AL	Dangla	DG	K/Mingist	KM	Robe	RB
AlemKetema	ALK	Dilla	DL	Kachise	KA	Sawla	SW
Alge	ALG	Dm.Dolo	DMD	Koffele	KF	Sekoru	SK
Ambo	AMB	Dubti	DBT	Konso	KN	Senkata	SN
Arba Minch	AM	Ejaji	EJ	Kulumsa	KL	Shambu	SH
Asaita	AS	Enwary	EN	Lalibela	LL	Shire	SHR
Asela	ASL	Fiche	FC	M.Meda	MM	Shola Gebeya	SG
Assosa	ASO	Filtu	FL	M/Abaya	MAB	Sirinka	SR
Awassa	AW	Gambela	GM	Maichew	MY	Sodo	SD
Aykel	AK	Gelemso	GL	Majete	MJ	WegelTena	WT
B. Dar	BD	Ginir	GN	Masha	MA	Woliso	WL
Bati	BA	Gode	GD	Mekele	MK	Woreilu	WI
Bedelle	BDL	Gonder	GDR	Merraro	MR	Yabello	YB
BUI	BU	Gore	GR	Metehara	MT	Ziway	ZW
Combolcha	CB	H/Mariam	HM	Metema	MTM		
D. Berehan	DB	Harer	HR	Mieso	MS		
D. Habour	DH	Holleta	HL	Moyale	ML		
D. Markos	DM	Hossaina	HS	M/Selam	MSL		